

### SUPPORT FOR THE AMENDMENTS

This Amendment amends Claim 1 and Claim 2. Support for the amendments is found in the specification and claims as originally filed. No new matter would be introduced by entry of these amendments.

Upon entry of these amendments, Claims 1-20 will be pending in this application. Claims 1 and 2 are independent.

### REQUEST FOR RECONSIDERATION

Applicants respectfully request entry of the foregoing and reexamination and reconsideration of the application, as amended, in light of the remarks that follow.

Applicants have discovered that organic Cannizzaro and Beckmann rearrangement reactions that proceed using  $\text{OH}^-$  occur rapidly, with reaction times of 10-400 seconds, in water in the absence of any basic catalyst if the water is supercritical, or subcritical of at least 350 °C.

Claims 1-20 are rejected under 35 U.S.C. § 103(a) over J. Org. Chem. 1997, 62, 2505-2511 ("An").

An, discloses only that hot water (up to 300 °C) can be used as a reaction media, but even then, when used for, e.g., a Cannizzaro reaction, the traditional basic catalyst NaOH must be added. See, e.g., An at abstract, line 1; Table 1 (in particular, entry no. 36). An discloses reaction times of 10 minutes (= 600 seconds) or more, with the NaOH catalyzed Cannizzaro reaction of benzaldehyde taking 60 minutes (= 3600 seconds). An at Table 1 (in particular, entry no. 36). However, An fails to suggest the limitations of independent Claims 1 and 2 of a reaction "in the absence of catalyst without addition of any basic catalyst in supercritical water or subcritical water of at least 350°C with a reaction time of 10-400 seconds". Thus, An fails to have rendered obvious the claimed invention.

The Final Rejection admits that "...concerning the reaction time difference, the claimed ranges and the prior art ***do not overlap***, ...". Final Rejection at page 3, section 2, lines 10-11 (emphasis added).

However, the Final Rejection asserts that the limitation of independent Claims 1 and 2 of "a reaction time of ***10-400 seconds***", and the minimum reaction time of 10 minutes (= ***600 seconds***) of An "are close enough that one skilled in the art would have expected them to have a similar reaction condition". Final Rejection at page 3, section 2, lines 11-12.

Applicants respectfully request that the Examiner provide support for the Final Action's implicit assertion of official notice that a ***minimum*** reaction time (i.e., 600 seconds) in An that is ***150%*** of the ***maximum*** reaction time (i.e., 400 seconds) of the present invention is "close enough" to suggest to the skilled artisan the claimed invention. If the Examiner is relying on some scientific theory, then pursuant to MPEP § 2144.02 Applicants' respectfully request that the Examiner provide evidentiary support for the existence and meaning of that theory. If the Examiner is relying on common knowledge or "well known" prior art, then pursuant to MPEP § 2144.03 Applicants' respectfully request that the Examiner provide documentary evidence or a technical line of reasoning to support the Final Rejection's assertion. The reaction times of the present invention are significantly shorter than those of An. These shorter reaction times would not have been reasonably expected, or achieved through routine experimentation, based on the disclosure of significantly longer reaction times in An.

If applicant adequately traverses the examiner's assertion of official notice, the examiner must provide documentary evidence in the next Office action if the rejection is to be maintained. MPEP 2144.03, page 2100-133, column 1.

Claims 1-2 and 3-6 are rejected under 35 U.S.C. § 112, first paragraph. The Final Rejection states "the rejection of Claims 1-2 and 3-6 have been maintained due to applicants' failure to modify the claims in the amendment [filed January 3, 2003]". However, in the

Amendment filed January 3, 2003, Claims 1-2 *were amended* to obviate the rejections under 35 U.S.C. § 112, first paragraph. Claims 1-2 are further amended in this response.

Applicants submit that the claims meet the requirements of 35 U.S.C. § 112, first paragraph.

Thus, the rejections should be withdrawn.

In view of the foregoing amendments and remarks, Applicants respectfully submit that the application is in condition for allowance. Applicants respectfully request favorable consideration and prompt allowance of the application.

Should the Examiner believe that anything further is necessary in order to place the application in even better condition for allowance, the Examiner is invited to contact

Applicants' undersigned attorney at the telephone number listed below.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,  
MAIER & NEUSTADT, P.C.



Norman F. Oblon  
Attorney of Record  
Registration No. 24,618

Customer Number  
**22850**

Tel: (703) 413-3000  
Fax: (703) 413 -2220  
(OSMMN 08/03)  
NFO:CPU/bwt

Corwin P. Umbach, Ph.D.  
Registration No. 40,211